IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of: § Jerry L. MIZELL et al. § § Serial No.: 10/025,543 § § Filed: December 18, 2001 § § For: Node, Network, and Method for Providing § Quality of Service Adjustments on a Per- § Application Basis § § §	Confirmation No. 8303 Group Art Unit: 2419 Examiner: Jay P. Patel

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

    This Appeal Brief is submitted in connection with an appeal from the final rejection of the Examiner, dated November 7, 2008, finally rejecting claims 1-16, all of the pending claims in the above-identified application.

REAL PARTY IN INTEREST

    The real party in interest is NORTEL NETWORKS, LTD., a Canadian company having a place of business at 2341 Boulevard Alfred-Nobel, St. Laurent, Quebec H4S 2A9, CANADA.

RELATED APPEALS AND INTERFERENCES

    There are no related appeals or interferences regarding the above-identified patent application.

STATUS OF CLAIMS

Claims 1-16 are pending, stand finally rejected, and are on appeal here. Claims 1-16 are set forth in the CLAIMS APPENDIX attached hereto.

STATUS OF AMENDMENTS

No amendments were presented in response to the final Office action mailed November 7, 2008.

SUMMARY OF CLAIMED SUBJECT MATTER

One aspect of the present invention, as now set forth in independent claim 1, relates to a method of processing data traffic in transit in a mobile telecommunication network (FIGURE 1). The method comprises filtering a packet of data to determine an application associated therewith for processing the packet (page 11, lines 9-page 12, line 2) and applying a service marking to the packet dependent on the application associated with the packet (page 12, lines 3-25).

Another aspect of the present invention, as now set forth in independent claim 6, relates to a node (FIGURE 1, node 30; FIGURE 2, node 300) of a mobile telecommunication network (FIGURE 1, MTS 100) operable to deliver at least one packet to a mobile device (FIGURE 1, MT 55) serviced by the mobile telecommunication network. The node comprises an interface (FIGURE 2, interface bays 310A, 310B) to at least one other network node (FIGURE 1, SGSN 20, 21) and a table (FIGUREs 2 and 3, table 347) comprising an index (FIGURE 3, index 348) including at least one key (FIGURE 3, keys 348A-348N), each key having a record associated therewith, each record having a service marking (FIGURE 3, service marking fields 349A-349N) therein, the node operable to interrogate the table with an identification of an application for processing the packet obtained from the packet (page 11, lines 15-25), the service marking returned to the node upon a match between the identification and one of the keys (page 11, lines 25-29; page 12, lines 19-22).

Yet another aspect of the present invention, as now set forth in independent claim 12, relates to a mobile telecommunication network (FIGURE 1, MTS 100) operable to provide data services to a mobile terminal serviced thereby (FIGURE 1, MT 55). The mobile telecommunications network comprises a first service node (FIGURE 1, node 30; FIGURE 2, node 300) including a table (FIGUREs 2 and 3, table 347) comprising one or more keys (FIGURE 3, keys 348A-348N) and at least one record associated with each of the one or more keys having a value indicative of an application for processing packets (page 12, lines 12-25), each of the one or more records having a service marking (FIGURE 3, service marking fields 349A-349N) stored therein and a base station subsystem (FIGURE 1, BSS 40, 41) operable to transmit data to the first service node and receive data from the first service node. The network further comprises at least one base transceiver station (FIGURE 1, BTSes 51A-51C, 52A-52C) operable to

provide radio frequency links to the mobile terminal (page 5, line 21 – page 6, line 2), the first service node operable to receive a first packet and determine an application associated therewith for processing the first packet (page 11, lines 13-17), the first service node operable to interrogate the table with a query value indicative of the associated application (page 11, lines 17-19), a service marking being returned upon matching the query value with a first key value, the service marking maintained in a record associated with the first key value (page 11, lines 21-25), the first service node operable to write the service marking into a field of the first packet (page 11, lines 25-29), the first service node operable to transmit the first packet across the telecommunication network (page 12, lines 19-22).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,072,300 to Chow et al. ("Chow") in view of U.S. Patent No. 7,023,820 to Chaskar ("Chaskar").

ARGUMENT

As detailed below, Appellants believe that the Examiner has improperly rejected independent claims 1, 6, and 12, as well as all claims dependent therefrom, as being unpatentable over the combination of Chow and Chaskar.

In particular, with regard to claim 1, Chow clearly fails to teach or suggest "filtering a packet of data to determine <u>an application</u> associated therewith <u>for processing the packet</u> . . . . " (emphasis added). In this regard, the Examiner cites column 7, lines 6-8, of Chow as teaching "filtering a packet of data for an application associated therewith;" however, the cited text merely discloses determining <u>policy information</u> associated with the received data frames. Such "policy information" disclosed by Chow is clearly <u>not</u> equivalent to "an application . . . for processing the packet" as recited in claim 1. Examples of such applications for processing packets within the context of the claim language are identified *inter alia* at page 10, lines 11-20, of the present specification and include, but are not limited to, wireless email, Internet browsing, and streaming media. Clearly, whatever else it may be, "policy information" is <u>not</u> equivalent to any of the identified examples or any other type of application for processing packets as required by claim 1.

In the Response to Arguments section of the final Office action, the Examiner posited that because the policy equation identified by the port filter's policy rules "specifies the type of processing to be given to the received frame . . . clearly Chow reads on filtering an application associated therewith for processing the packet." However, the "type of processing" that may be given to a packet according to

Chow comprises "whether the data frame should receive expedited, assured, or default processing or whether the data frame should be dropped or sent to a management device." Chow does not disclose identifying what application is destined to receive (and subsequently process) the packet, which is an entirely different consideration altogether. Clearly, therefore, in view of the foregoing, Chow's determining a type of processing to be given to a packet is not equivalent to determining an application for processing the packet, as clearly recited in claim 1.

Chaskar, which is cited for its teaching of applying differential services in a mobile telecommunications network, fails to remedy the deficiencies of Chow discussed above.
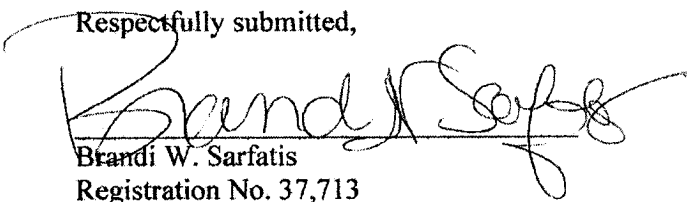
Accordingly, claim 1 is not rendered obvious by the combination of Chow and Chaskar and this Board should reverse the rejection thereof. Independent claims 6 and 12 include limitations similar to claim 1 as discussed above and are therefore also not rendered obvious by the cited combination and should be allowed. Claims 2-5, 7-11, and 13-16 depend from and further limit independent claims 1, 6, and 12, and are therefore also deemed to be allowable over the cited combination for at least that reason.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the cited references and combinations of references fail to teach, suggest, or render obvious the subject matter of claims 1-16. For all of the foregoing reasons, this Board is respectfully requested to reverse the Examiner's decision rejecting claims 1-16 and allow all pending claims. A prompt decision to that effect is earnestly solicited.

Respectfully submitted,

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CLAIMS APPENDIX

1.   A method of processing data traffic in transit in a mobile telecommunication network, comprising:

filtering a packet of data to determine an application associated therewith for processing the packet; and

applying a service marking to the packet dependent on the application associated with the packet.

2.   The method according to claim 1, wherein filtering a packet of data to determine an application associated therewith further comprises reading a port from the packet and determining the application from the read port.

3.   The method according to claim 2, wherein determining the application from the read port further comprises:

interrogating a table with the read port, the table including an index of at least one port, each of the at least one port comprises a key of the table, a record having a service marking respectively associated with each of the keys;

determining the read port has a match with a first one of the keys of the table; and

returning the service marking included in the record associated with the first one of the keys.

4.   The method according to claim 3, further comprising writing
the service marking included in the record associated with the first one of the keys into a field of the packet.

5.   The method according to claim 3, wherein the service marking in the record is a differentiated service codepoint.

6.   A node of a mobile telecommunication network operable to deliver at least one packet to a mobile device serviced by the mobile telecommunication network, comprising:

an interface to at least one other network node; and

a table comprising an index including at least one key, each key having a record associated therewith, each record having a service marking therein, the node operable to interrogate the table with an identification of an application for processing the packet obtained from the packet, the service marking returned to the node upon a match between the identification and one of the keys.

7.   The node according to claim 6, wherein the node is an access router that interfaces the mobile telecommunication network with an external network.

8.   The node according to claim 6, wherein the node writes the returned service marking into a field of the packet.

9.   The node according to claim 8, wherein the field is a differentiated services field of a transport layer header encapsulated in the packet.

10.   The node according to claim 6, wherein the service marking is a differentiated services codepoint.

11.   The node according to claim 6, wherein the node is a general packet radio services support node.

12.   A mobile telecommunication network operable to provide data services to a mobile terminal serviced thereby, the mobile telecommunications network comprising:

a first service node including a table comprising one or more keys and at least one record associated with each of the one or more keys having a value indicative of an application for processing packets, each of the one or more records having a service marking stored therein;

a base station subsystem operable to transmit data to the first service node and receive data from the first service node; and

at least one base transceiver station operable to provide radio frequency links to the mobile terminal, the first service node operable to receive a first packet and determine an application associated therewith for processing the first packet, the first service node operable to interrogate the table with a query value indicative of the associated application, a service marking being returned upon matching the query value with a first key value, the service marking maintained in a record associated with the first key value, the first service node operable to write the service marking into a field of the first packet, the first service node operable to transmit the first packet across the telecommunication network.

13.   The telecommunication network according to claim 12, wherein each value of the one or more keys is a port number.

14. The telecommunication network according to claim 12, wherein each service marking is a differentiated services codepoint.

15. The telecommunication network according to claim 12, wherein the first service node further comprises a memory bank, a central processing unit, and a filter, a port number field of a packet read by the filter, the value of the port number read used by the first service node to interrogate the table index.

16. The telecommunication network according to claim 12, wherein the first service node further comprises a processing card, the processing card including a memory module and a processing unit, a filter maintained in the memory module and executable by the processing unit, the filter operable to analyze the first packet and determine the value indicative of the associated application.

EVIDENCE APPENDIX

Not applicable to the present appeal

RELATED PROCEEDINGS APPENDIX

Not applicable to the present appeal